

**REMARKS RELATING TO THE LAST OFFICE ACTION**  
**IN THE PARENT APPLICATION**

Applicants note that claims 44-64 have been cancelled and new claims 65-87 have been added. Claims 64-87 are now pending. The support for the new claims may be found throughout the specification, including on following pages:

claim 65, page 3, 4<sup>th</sup> paragraph, and on page 4, 1<sup>st</sup> and 2<sup>nd</sup> paragraphs;

claim 66, page 9, 2<sup>nd</sup> paragraph;

claims 67-70, page 10, 1<sup>st</sup> paragraph;

claim 71, page 7, 1<sup>st</sup> paragraph;

claims 72, 73, and 76, page 5, 2<sup>nd</sup> and 3<sup>rd</sup> paragraphs;

claim 74, page 10, last paragraph;

claim 75, pages 12 and 13, last paragraph and 2<sup>nd</sup> paragraph, respectively;

claim 77, page pg. 9, 1<sup>st</sup> paragraph;

claims 78-80, page 11, 2<sup>nd</sup> and 3<sup>rd</sup> paragraphs;

claim 81, page 13, 2<sup>nd</sup> paragraph;

claim 82, page 11, 4<sup>th</sup> paragraph;

claims 83-86 page 12, 1<sup>st</sup> and 2<sup>nd</sup> paragraphs, respectively; and

claim 87, page 17, 3<sup>rd</sup> paragraph.

No new matter has been added.

**Rejection under 35 USC § 112, second paragraph:**

The Examiner rejected claims 44-52, 54-61, and 64 under 35 USC § 112, second paragraph, for being indefinite and for failing to point out and distinctly claim the subject matter which Applicants regard as their invention.

More specifically, claims 44-52, 54-61, and 64 were rejected for being indefinite for reciting "derived" as the specification does not provide the standard for ascertaining the requisite degree of derivation and the term "derivation" has many interpretations. The indefiniteness rejection should not be applied to new claims 65-87 as these new claims do not include language objected to by the Examiner in the last Office Action.

**Rejection under 35 USC § 112, first paragraph:**

The Examiner rejected claims 51-52 and 56-61 under 35 USC § 112, first paragraph, as containing subject matter which was not described in the specification in such way as to reasonably convey the one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants submit that new claims 67-70, 79-80, and 85-86 are adequately described in the specification to meet this standard. For example, on page 10 of the specification, Applicants disclose a formula (I) and several partial preferred sequences of SEQ ID Nos. 29-34, namely SEQ ID Nos. 35-39, which are 10 amino acids in length. Therefore, Applicants submit that the specification contains a sufficient number of examples to support new claims 67-69 and 79-80 directed to amino acid having a minimum of 10 amino acids.

Furthermore, in the specification, on page 9, the last two lines, continuing on page 10, the first paragraph, Applicants disclose antigens containing partial sequences of the SEQ ID Nos.: 29-34 with minimum length of 7 amino acids, wherein the sequences include the amino acids between two cysteines, including two cysteines. Therefore,

Applicants believe that the specification demonstrates that the Applicants were in possession of the claimed SEQ ID Nos.: 29-34 with minimum length of 7 amino acids, because structural characteristics of these sequences, such as the two cysteine residues, are disclosed on pages 9-10 of the specification. Accordingly claims 70 and 85-86 are adequately supported by Applicants' disclosure in the specification.

For all these reasons, Applicants submit that the specification recites sufficient distinguishing, identifying characteristics, sufficient to satisfy the written description requirement with respect to new claims 67-70, 79-80, and 85-86. Therefore, this ground of rejection should not be applied against new claims 67-70, 79-80, and 85-86.

### CONCLUSION

Applicants submit that the new claims are fully consistent with the statutory provisions of 35 U.S.C. § 112, first and second paragraph. The Applicants respectfully submit that present application is now in condition for allowance. Should the Examiner feel a discussion would expedite the prosecution of this application, the Examiner is kindly invited to contact the undersigned.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Jeffery M. Duncan', is written over a horizontal line.

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